

Miriam Wanner<sup>a</sup>, Manu Praz<sup>b</sup>, Thomas Wyss<sup>a</sup>, Brian W. Martin<sup>a,c</sup>

<sup>a</sup> Swiss Federal Institute of Sport Magglingen

<sup>b</sup> Centre de conseils sport & santé, Clinique romande de réadaptation, Sion

<sup>c</sup> Institute of Social and Preventive Medicine, University of Zurich

# Evaluation of the local physical activity and sport network in Nendaz: Results of two cross-sectional population-based surveys

## Abstract

The aim of local physical activity and sport networks in Switzerland is to improve co-operation between different players in physical activity and sport promotion in a community, town or region. Nendaz has introduced such a network in 2004. Two postal questionnaire surveys were carried out in 2005 and 2007. The local network in Nendaz reached a high level of awareness, its utilisation in the population and satisfaction were generally good. Physical activity behaviour was high in both years compared to the general French-speaking population in Switzerland. In order to judge the effects of such an intervention on the population level, baseline surveys should be carried out before the start of the project and control communities should be studied simultaneously.

### Key words

Switzerland, intervention, physical activity promotion, adults, children, sport infrastructure

## Zusammenfassung

Ziel von lokalen Bewegungs- und Sportnetzen (LBS) ist die Verbesserung der Kooperation zwischen verschiedenen Akteuren in der Bewegungs- und Sportförderung in einer Gemeinde, einer Stadt oder einer Region. Nendaz hat ein solches Netzwerk im Jahr 2004 eingeführt. Zwei schriftliche Umfragen wurden 2005 und 2007 durchgeführt. Das LBS Nendaz erreichte eine hohe Bekanntheit und Nutzung in der Bevölkerung und die Beurteilung war allgemein gut. Das Bewegungsverhalten war in beiden Jahren höher als in der allgemeinen Bevölkerung in der französischsprachigen Schweiz. Um die Wirksamkeit einer solchen Intervention auf Bevölkerungsebene zu untersuchen, müsste eine Basisbefragung vor dem Start des Projekts durchgeführt sowie eine Kontrollgemeinde gleichzeitig untersucht werden.

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## Introduction

The Swiss Federal Office of Sport supports the development of local physical activity and sport networks in communities, towns and regions. The aims of these networks are to bring together different players in physical activity and sport promotion, to offer activities for all age groups, to optimise the conditions for individuals to be active, and to ensure sustainability for these activities. A number of local networks already exist. More information is available on the Internet ([www.sportnetz.ch](http://www.sportnetz.ch); Bundesamt für Sport und Schweizerischer Gemeindeverband, 2006; Bundesamt für Sport, 2007). In Nendaz, a community in the French-speaking part of Switzerland, the development of a local network started in March 2002 with the establishment of a working group. The project officially started in December 2003. Its aims are the creation of a network of different actors in physical activity and sport promotion as well as the initiation and support of local physical activity and sport promotion projects for all age groups, in order to increase the well-being of the community residents. More information on the local network in Nendaz is available on the Web site [www.nendaz-sport.org](http://www.nendaz-sport.org) (in French only). The aim of the present publication is to report on the evaluation steps carried out until 2007.

## Methods

Two postal questionnaire surveys were carried out among the adult population of Nendaz in 2005 and 2007. In December 2004, 1000 questionnaires were posted to a random sample of residents aged 16 years and older. A reminder was sent to non-responders in March 2005. 505 questionnaires were returned until April 2005 (response 50.5%). The population of Nendaz was 5567 in 2004 ([www.nendaz.org](http://www.nendaz.org)), thus information was available from around 10% of the population. Two years later in February 2007, again 1000 questionnaires were posted to a random sample of the population of Nendaz aged 16 years and older. In March 2007, a reminder was sent to non-responders. 435 questionnaires were returned until May 2007 (response 43.5%). The survey 2005 included questions on physical activity behaviour, on awareness, utilisation and satisfaction with the local network in Nendaz, on participation in and satisfaction with specific sport offers, and on the availability of information about local physical activity and sport offers. In addition, the survey 2007 included questions on satisfaction with the sport infrastructure, on sport offers for children and adolescents, and on activities in sport clubs and physical activity courses.

Descriptive statistics were used to present the results of the two surveys. T-tests for means and Chi2-tests for proportions were used to compare the results of the two surveys.

## Results

### Characteristics of the respondents

There were no significant differences in demographic characteristics of participants between 2005 and 2007. The mean age was 39.7 years in both surveys ( $p = 0.96$ ). The proportion of women was 48.8% in 2005 and 53.8% in 2007 ( $p = 0.13$ ). The proportion of overweight individuals (Body Mass Index  $\geq 25$  kg/m<sup>2</sup>) was 33.2% in 2005 and 34.7% in 2007 ( $p = 0.66$ ).

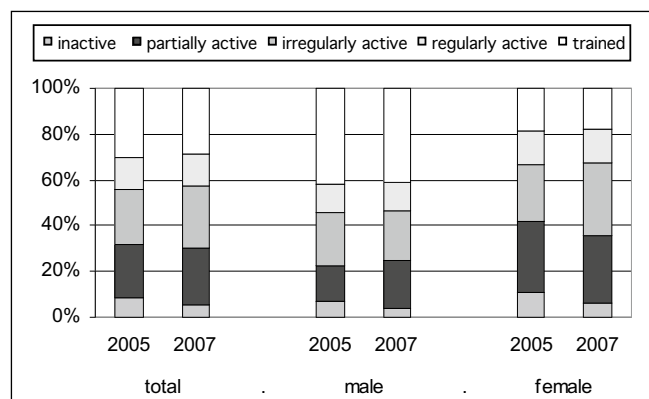


Figure 1: Physical activity behaviour in Nendaz in 2005 and 2007 according to gender

### Physical activity behaviour

Physical activity was categorised according to the five-level indicator generally used in Switzerland (Lamprecht and Stamm, 2006): trained ( $\geq 20$  minutes of vigorous intensity activities on  $\geq 3$  days per week), regularly active ( $\geq 30$  minutes of moderate intensity activities on  $\geq 5$  days per week), irregularly active ( $\geq 150$  minutes of moderate intensity activities per week or  $\geq 20$  minutes of vigorous intensity activities on 2 days per week), partially active ( $\geq 30$  minutes of moderate intensity activities per week or  $\geq 20$  minutes of vigorous activities on 1 day per week), and inactive (minimal or no activities). Trained and regularly active individuals are considered as sufficiently active. Figure 1 shows physical activity behaviour in 2005 and 2007 in Nendaz according to this indicator for all respondents and separately for men and for women. Compared to the general population in the French-speaking part of Switzerland, the population in Nendaz was more active (44.0% of sufficiently

active individuals in 2005 and 42.6% in 2007 compared to 30.5% in the French-speaking part of Switzerland in 2002 (Lamprecht and Stamm, 2006)).

There were no statistically significant differences in physical activity behaviour between 2005 and 2007 in Nendaz, except that the proportion of completely inactive individuals decreased from 8.6% in 2005 to 5.2% in 2007 ( $p = 0.037$ ). In both surveys, one quarter of the respondents was a member in a sport club, which is comparable with the general Swiss population (Lamprecht et al. 2008).

### The local network in Nendaz

The proportion of respondents that had heard of the local physical activity and sport network, had used it and had been in contact with network staff, as well as satisfaction with the local network are displayed in table 1. Satisfaction was expressed as means and 95% confidence intervals (95% CI) based on a rating from 1 (very bad) to 6 (very good), including all available answers (all) and only answers of those who reported to have used the network or its Web site or to have had contact with network staff (users). The proportion having heard of the local network increased significantly from 60.9% in 2005 to 70.1% in 2007 ( $p = 0.003$ ). Furthermore, while 10.3% reported to have used offers related to the network in 2005, 20.2% did so in 2007 ( $p < 0.001$ ). There was no difference between 2005 and 2007 in the proportion that had heard of the Web site, had used it, had heard about the network staff and had contacted them. The rating was comparable in both years as well.

In 2005, 47.2% of the respondents stated that the sport offers in Nendaz had improved, 9.4% did not see any changes and 1.2% declared that they had deteriorated during the 12 months preceding the survey. 42.2% did not know. In 2007, the corresponding proportions were 29.1% (improvement), 21.2% (stable), 0.7% (deterioration), and 48.9% (did not know).

### Utilisation of sport offers and sport infrastructure

The type of sport courses offered in the context of the local network Nendaz differed between 2005 and 2007, and the questions regarding the participation in these offers were slightly different as well. Thus a direct comparison of the utilisation of these offers was not possible. Both the proportion having heard about specific offers as well as the proportion having participated in them was much lower in 2007 compared to 2005. In 2005, between 1.6% (Capoeira) and 10.6% (walking and stretching) of respondents reported to have participated in a specific network sport offer. In 2007, the least popular offer was Capoeira with 0.2% reporting to have participated, the most popular one was Badminton with 3.7% participating.

In 2007, questions regarding specific sport infrastructure in the community of Nendaz were included additionally. It is beyond the scope of this article to report on details of these results, however it may be summarised that the range in satisfaction with specific features was large. Critical feedbacks may help to improve existing infrastructure and to plan further developments. More information

	have heard about		have used it / had contact		Rating <sup>1</sup> (all)	Rating <sup>1</sup> (users)	Rating <sup>1</sup> (all)	Rating <sup>1</sup> (users)
	2005	2007	2005	2007	2005		2007	
	%	%	%	%	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)
Local network in general	60.9	70.1	10.3	20.2	4.5 (4.2–4.8)	5.0 (4.8–5.3)	4.4 (4.3–4.6)	4.8 (4.6–5.0)
Web site (www.nendazsport.ch)	31.6	35.7	12.5	13.1	4.2 (3.8–4.5)	4.6 (4.4–4.9)	4.4 (4.1–4.6)	4.4 (4.2–4.7)
Network staff	46.4	44.2	14.6	17.0	4.6 (4.3–4.9)	4.9 (4.6–5.2)	4.6 (4.4–4.9)	5.1 (4.9–5.2)

<sup>1</sup> rating from 1 (very bad) to 6 (very good). 95% CI = 95% confidence intervals

Table 1: Level of awareness of, utilisation of and satisfaction with the local network Nendaz, its website and the persons responsible, one year and three years after the beginning of the project

on the results regarding the sport infrastructure is available in Wanner et al. (2007).

### *Sport and physical activity offers for children*

It was assumed that those respondents in 2007 who answered the question on whether their children were offered a sufficient amount of sport at school were parents with school-aged children ( $N = 157$ ). Of those, 79.2% were satisfied with sport and physical activity offers for children in Nendaz. 86.6% reported that their children participated in any kind of sport activities, 7.0% reported no sport activities for their children, and 6.4% did not specify. 54.1% of the children participated in a sport club, 33.8% in out-of-school activities offered by the community of Nendaz in the context of the local network, and 66.2% engaged in non-organised sports (multiple answers possible).

### **Conclusions**

Already one year after the local network was introduced, the level of awareness and the participation in specific sport offers was high (survey 2005). Even more so, a significant increase in awareness and utilisation of the local network was achieved between 2005 and 2007, with more than 70% having heard of the network and more than 20% having used it in any way in 2007. Respondents rated the network mainly positive in both surveys. In 2005, almost half of the respondents recognised improvements in the sport offers in Nendaz. In 2007, this proportion decreased to about one third. This may be explained by the more obvious changes that had probably occurred early after the introduction of the network.

Compared to the general population in the French-speaking part of Switzerland, physical activity levels were high in Nendaz in both surveys. The proportion of completely inactive individuals decreased significantly between 2005 and 2007, however there was no significant increase in the proportion of sufficiently active individuals. This is not surprising considering the already high levels of sufficiently active individuals in 2005.

The satisfaction with different specific sport infrastructures varied much, ranging from very unsatisfied to very satisfied. These feedbacks may be used as some indication of where improvements are needed and help to judge where resources may be best allocated.

It is possible that individuals who were generally more interested in sport were more likely to respond to the surveys. Such a selection bias may cause over-reporting of some variables, such as physical activity behaviour, the utilisation of sport offers and infrastructure, or the awareness of available offers. However, the socio-demographic information did not indicate strong selection of a specific population segment.

These two surveys are the first evaluation approaches in the context of local physical activity and sport networks in Switzerland. Valuable information could be gained from these surveys, though no clear evidence could be derived concerning the effectiveness of such an intervention. In order to judge the effect of such interventions on the population level, baseline surveys should be carried out before the start of the projects and control communities should be studied simultaneously.

Address for correspondence:

Miriam Wanner, Swiss Federal Institute of Sport Magglingen, Brésil, Alpenstrasse 21+23, CH-2532 Magglingen, Switzerland, Phone: +41 32 327 6138, Fax: +41 32 327 6404  
E-mail: Miriam.Wanner@baspo.admin.ch

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